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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,610

03/21/2005

Ronald J. Weeks

62760B

4031

109 7590 08/23/2007

THE DOW CHEMICAL COMPANY  
INTELLECTUAL PROPERTY SECTION, P. O. BOX 1967  
MIDLAND, MI 48641-1967

EXAMINER

KRUER, KEVIN R

ART UNIT

PAPER NUMBER

1773

MAIL DATE

DELIVERY MODE

08/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/528,610	<b>Applicant(s)</b> WEEKS, RONALD J.	
	<b>Examiner</b> Kevin R. Kruer	<b>Art Unit</b> 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,11,13-21 and 24-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11,13-21 and 24-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/21/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The rejection of claim 21 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been overcome by deletion.

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 3-9, 11, 13-20, 22, and 24-28 are rejected under 35 U.S.C 103(a) as being unpatentable over Chum et al (US 5,677,383) in view of Bamberger et al (US 6,384,158).

Chum teaches a polymer blend that comprises from 5-95wt% of at least one first homogeneously branched ethylene interpolymer having at least one first comonomer, and 95-5wt% of at least one second heterogeneously branched ethylene interpolymer having at least one second comonomer (abstract). The composition has a density of 0.900-0.935g/cc and the melt range is from 0.1-100g/10min. Said composition can be fabricated into an article including multi-layered articles. The homogeneously branched interpolymer comprises a C3-C20 olefin and has a single melting point. Said interpolymer preferably comprises 35-85wt% of the composition and has a Mw/Mn of 1.8-2.8. It has a CDBI of greater than 50 (herein understood to anticipate 80-100 claimed in claim 28). The heterogeneously branched polyethylene comprises a

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copolymer of ethylene and a C3-C20 olefin and has a molecular weight distribution of greater than 3. Said component has at least 2 melting points, as determined using differential scanning calorimetry, between -30 and 150C. Thus, the composition as a whole has at least 3 melting points (one from the homogeneously branched ethylene and at least 2 from the heterogeneously branched ethylene).

Chum does not teach the composition may be blended with polypropylene in order to improve its melt strength. However, Bamberger teaches that it is common practice to add low levels of LDPE to a linear polyethylene in order to increase its melt index (see Background of the Invention). Furthermore, Bamberger teaches that LDPE is known in the art to have a melt strength 2-3 times greater than that of LLDPE (col 12, lines 6+). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to sufficient amounts of LDPE to the LLDPE composition taught in Chum. The motivation for doing so would have been to improve the melt strength of the composition.

### ***Response to Arguments***

Applicant's arguments filed June 5, 2007 have been fully considered but they are not persuasive.

Applicant argues that higher melt strength is not a universally desired characteristic. The examiner agrees but notes that the skilled artisan would have desired said characteristic in the present situation. Applicant further argues the addition of LDPE leads to a decrease in other properties such as heat sealing properties or toughness. Said argument is acknowledged, but the skilled artisan would have been

able to optimize the amount of LDPE added to the composition in order to optimize all the properties of the resulting blend.

According to Applicant, the teaching of "low level" additions of LDPE would not encompass the claimed amount of LDPE (20-40%). The examiner respectfully disagrees. In support of the position, JP'729 and JP'245 are cited to demonstrate that melt strengths of such compositions are typically modified by the addition of 5-50wt% LDPE. Since the art recognizes up to 50wt% LDPE may be added to such compositions in order to modify the composition's melt strength, the examiner maintains the position that the claimed composition comprising 20-40wt% LDPE is rendered obvious by Chum in view of Bamburger. Specifically, the skilled artisan would have realized the "low level" teaching of Bamburger would read on 5-50wt% LDPE.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

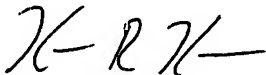
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is 571-272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin R. Kruer  
Patent Examiner-Art Unit 1773